Why is it so cold and snowy?

Description

Ewen McCallum, Met Office Chief Meteorologist explains some of the reasons for the notable for the intense and prolonged cold weather we have been experincing.

> “Normally our winds come from the west keeping our winters relatively mild. However this year (like last winter) we have seen a large area of high pressure develop in the Atlantic, causing a ‘block’ to the westerly winds that tend to keep us that little bit milder. As a result this has allowed very cold arctic air to move south across mainland Europe.
>
> At this time of year with the long nights the landmass of Europe is cooling down rapidly and so the air has remained bitterly cold. However this air has had to cross a relatively warm North Sea to get to the UK and has therefore picked up heat and moisture. Because the air is so cold this has resulted in snow showers forming and with the wind coming from the East it is coastal areas along the North Sea that have seen the heaviest snow. Also by the localised nature of showers the amount of lying snow has varied greatly from place to place.
>
> It is very unusual for a period of easterly winds to bring such heavy and prolonged snowfall. One reason why we have seen such large amounts of snow is that the pressure is much lower than normal allowing the air to rise and form deeper clouds and producing heavier showers.
>
> Looking at the Met Office outlook there appears to be no sign of an end to this cold and snowy weather in the next two weeks, but as soon as our forecasters see a change we will let you know.”

Date Created
November 2010

Big chill breaks November temperature records

Description

Last night saw November minimum temperature records fall across the country. Most notably both Wales and Northern Ireland recorded the coldest November night since records began. In Wales, temperatures fell to -18.0 °C at Llysdinam, near Llandrindod Wells, Powys. Northern Ireland recorded -9.5 °C at Loch Fea.

Scotland recorded minimum temperature of -15.3 °C at Loch Glascarnoch, whilst England recorded -13.5 °C at Topcliffe in North Yorkshire.

The UK's lowest ever recorded temperature in November was – 23.3 °C recorded in Braemar, in the Scottish Highlands, on November 14, 1919.

The cold and snow is expected to continue to affect many parts of the UK today and through the coming week. Met Office forecasters are warning of further severe frosts, snow and icy conditions. The north-easterly winds, with a significant wind chill will also make it feel bitterly cold as daytime temperatures struggle to rise above freezing.

Met Office warnings and advisories of severe weather for snow and icy roads are in force for parts of northern and eastern England, parts of Scotland and Northern Ireland. Further snowfall is expected through Scotland and the north east on Sunday.

Met Office Chief Forecaster, Steve Willington said: "The very low overnight temperatures we have seen are likely to be repeated through the coming week as the cold and snowy weather continues. As winds increase into next week, it will feel increasingly cold with a significant wind chill to contend with by day and night.

"Icy roads and snow will be a risk for many, and the public are advised to stay up to date with the forecast to make sure they have the latest information."

Keep up to date with the latest forecast and warnings

Throughout the winter, the Met Office works with the Department of Health and NHS to help keep people well at times of severe weather. Our specially produced health forecasts, such as Healthy Outlook for COPD patients, give professionals and patients the opportunity to take action to help keep them well, as cold and snow take hold.

Date Created
November 2010

Met Office in the News: 26 November 2010

Description

The cold and snow across the UK is being covered extensively with coverage including, Britain 'faces 10-day wintry blast' (mirror.co.uk), North-east UK struggles as snow blows in (independent.co.uk), Fresh snowfall amid ice warning (bbc.co.uk), Snowvember (thesun.co.uk) and Forecasters predict more snow in UK (bbc.co.uk).

Today on BBC Radio 4 reported how the Met Office have issued a report on how this year is shaping up to be the hottest year on record, and how global temperatures may have been under-estimated. Dr Vicky Pope, head of climate change at the Met Office, explained how we may be underestimating the rate of global warming.

BBC Radio 5 Breakfast (last 5 minutes) and BBC online also covered the story in Met Office says 2010 'among hottest on record'.

Other newspapers reported: World is growing warmer, but pace slows (ft.com), Global warming is slowing down, say scientists (dailymail.co.uk) and World is warming quicker than thought in past decade, says Met Office (guardian.co.uk).

Met Office scientists have been awarded the inaugural Lloyd's Science of Risk Prize for our work on long range hurricane predictions that will help tackle the largest single cause of insured loss.

Dr. Doug Smith, Met Office specialist in decadal forecasting, was awarded the prize for Best Overall Paper as well as the Science of Risk Prize for the Natural Hazard category. He led research that demonstrated for the first time the capability of climate models such as the Met Office Decadal Climate Prediction System (DePreSys) extends successful storm activity forecasts beyond the current season, to provide predictions years ahead. An interview with Doug Smith followed the story.

Date Created
November 2010

Big chill continues across the UK

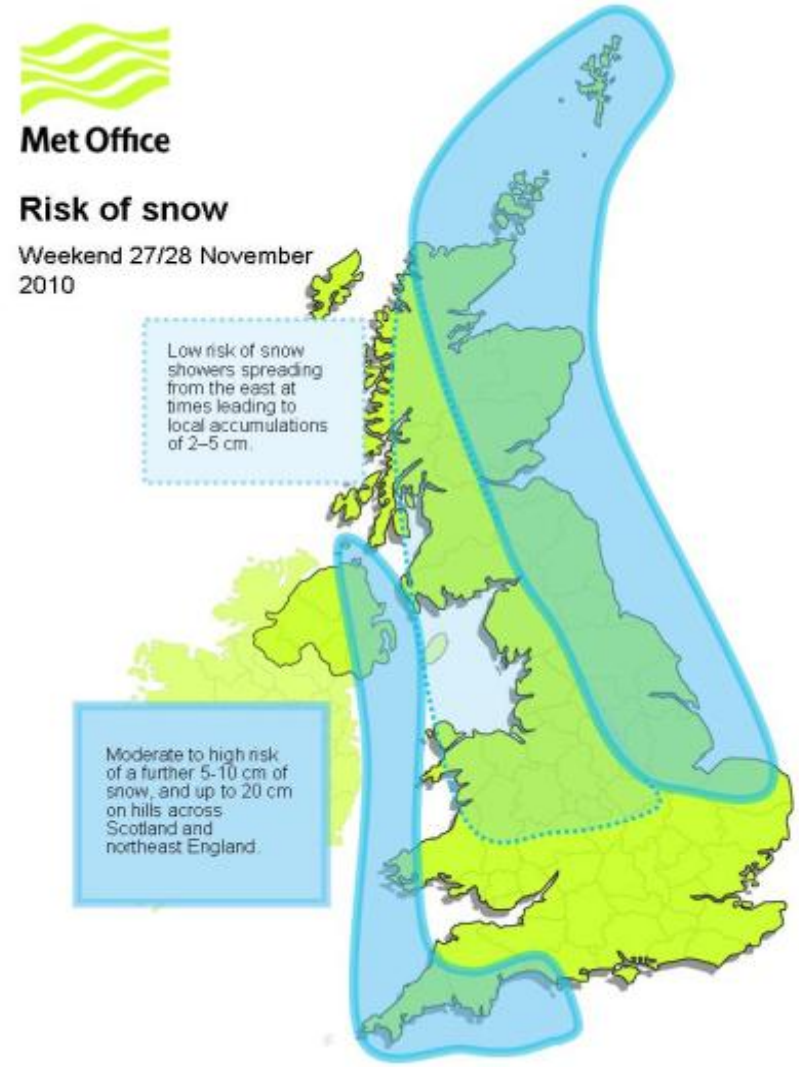
Description

With the cold and snow continuing to affect many parts of the UK, Met Office forecasters are warning of icy conditions persisting through the weekend and next week.

Met Office advisories of severe weather for snow and icy roads are in force through the weekend across parts of northern and eastern England, parts of Scotland And Northern Ireland and south west England, where snow showers and icy roads will become increasingly likely.

Met Office Chief Forecaster, Frank Saunders said: “The cold and snow have become firmly established across the UK and although the focus of the snow has mainly been across eastern parts of the UK, as we head through the weekend many other parts may well see some snow showers too.

“Icy roads and snow will be a risk for many, and the public are advised to stay up to date with the forecast to make sure they have the latest information.”


Met Office
Risk of snow
Weekend 27/28 November 2010
Low risk of snow showers spreading from the east at times leading to local accumulations of 2–5 cm.
Moderate to high risk of a further 5-10 cm of snow, and up to 20 cm on hills across Scotland and northeast England.

Risk of snow through the weekend

You can stay up to date with the very latest weather forecasts and warnings

The cold persists into next week with strengthening easterly winds making it feel particularly raw, with widespread frosts. Further snow is likely and Met Office forecasters are keeping a close eye on the developing situation.

Throughout the winter the Met Office works with the Department of Health and NHS to help keep people well at times of severe weather. Our specially produced health forecasts, such as Healthy Outlook for COPD patients, give professionals and patients the opportunity to take action to help keep them well as cold and snow take hold.

Date Created
November 2010

Big chill begins as ice and snow arrive

Description

The most widespread November snowfall since 1993 has arrived as forecast across many parts of the UK, with snow falling mainly across northern Scotland and north-east England, but also over parts of Northern Ireland, Wales and south-west England.

The cold and snow showers are forecast to affect other parts of the UK by the weekend, with widespread overnight frosts and day-time temperatures struggling to reach much above 3 deg C. These colder conditions are expected to persist through the weekend and next week.

Met Office warnings of severe weather for snow and icy roads are in force across parts of northern and eastern England and Scotland, where snow showers will become increasingly frequent in places. There is also a risk of snow further west over parts of Wales and south-west England during Friday.

Met Office Chief Forecaster, Andy Page said: “There is no doubt that the UK will see very cold weather for the rest of the week and over the weekend. Icy roads and snow will be a risk for many, and the public are advised to stay up to date with the forecast to make sure they have the latest information.”

Throughout the winter the Met Office works with the Department of Health and NHS to help keep people well at times of severe weather. Our specially produced health forecasts, such as Healthy Outlook for COPD patients, give professionals and patients the opportunity to take action to help keep them well as cold and snow take hold.

- Latest weather forecast
- Staying warm in winter
- About snow and how to report your snow observations

Related Articles

- Big chill begins as snow blows in (independent.co.uk)

- You: Snowfalls hit north and east (guardian.co.uk)
- Big chill begins with early snow (mirror.co.uk)
- Big chill begins as snow arrives (bbc.co.uk)
- Big freeze begins with most widespread November snowfall in 17 year (dailymail.co.uk)
- Wintry weather to last for 10 days (telegraph.co.uk)
- Britons braced for freezing spell (mirror.co.uk)
- You: Met Office issues snow warning (guardian.co.uk)

Date Created
November 2010

Cold and snow arrives in the UK

Description

Colder weather with snow showers have affected parts of Scotland and northern England as forecast and are expected to spread to other northern and eastern parts of the UK through the rest of the week.

These colder conditions will spread across the whole of the UK by the end of the week, with widespread overnight frosts and daytime temperatures struggling to reach much above 3 °C by the weekend. These colder conditions are forecast to persist through the weekend and well into next week.

Met Office advisories of severe weather for snow are in force across parts of northern and eastern England and Scotland, where snow showers will become increasingly frequent in places. Localised accumulations of 2-5 cm of snow are possible inland, with up to 20 cm across the North York Moors and Grampian Mountains by the end of Thursday. There is a lower risk of snow extending further west into the Midlands and parts of Wales through Thursday and Friday.

Met Office Chief Forecaster, Andy Page said, “There is no doubt that the UK will see much colder conditions by the end of the week. Snow will also be a risk for many, and the public are advised to stay up to date with the forecast to make sure they have the latest information.”

Throughout the winter the Met Office works with the Department of Health and NHS to help keep people well at times of severe weather. Our specially produced health forecasts, such as Healthy Outlook® for COPD patients, give professionals and patients the opportunity to take action to help keep them well as cold and snow take hold.

Keep up to date with the latest forecast and warnings

Winter road maintenance

Health services

What to do in times of severe weather

Staying warm in winter (Directgov)

Date Created
November 2010

Met Office in the Media: 24 November 2010

Description

The date of the Royal Wedding caused a number of newspapers to look at what the weather may be like on the big day. Of course it is too early to provide a forecast, but we can look at what the weather has been like on previous 29th April's. The Daily Mail and the Telegraph covered this, explaining that there was a great deal of variability to the weather in April. Both the Evening Standard and the Daily Express believed that the Met Office had provided a forecast for the actual day. The Evening Standard corrected their story through the day.

The impending snow and cold has also been widely covered in the media, with the BBC asking ' Is Britain prepared for snow?' and the Daily Mail, ITV.com, Metro all reporting on the developing cold and snow situation.

You can find out more about snow and how we forecast it on our webpage Snow Forecast on which you can submit your own snow reports that we will map to show where and when it is snowing.

Related Articles

- You: Met Office issues snow warning (guardian.co.uk)
- Snow to settle in Britain as winter weather sets in (telegraph.co.uk)

Date Created
November 2010

Royal wedding weather

Description

West view of Westminster Abbey, London.

Following the announcement that Prince William and Kate Middleton will marry on 29th April 2011 at Westminster Abbey we have looked back at the national weather records over the last 21 years to see what the weather may typically be like on the day they have chosen.

When the wedding was announced it was too early to give a forecast for the big day itself, but at this stage looking at the climatology of the day could be a useful guide.

Now the wedding is closer we are providing a royal wedding forecast on our website and also a video forecast on our YouTube channel. Both of these will be updated daily in the run up to friday.

On average, the day-time maximum temperature is 16.6°C ranging from 9.7 °C in 2004 to 23.5 °C in 1994. The average night-time temperature is 7.8 °C, ranging from 4.2 °C in 2009 to 11.5 °C in 1997

The 29th April saw a dry day (9am to 9pm) in 15 of the years of the last 21, with only 6 seeing rain. The wettest was in 1991 when 15.6mm of rain fell at Heathrow.

The sunniest 29th April were in 1990 and 2000 both seeing 13.2 hours, however 2010, 2004, 1995 and 1991 saw virtually no sunshine at all.

Based on Met Office climatological estimates there is roughly a 1 in 3 chance of seeing more than 1mm or rain and a 1 in 30 chance of seeing more than 10mm of rain on this day in April.

Related Articles

- Royal wedding weather forecast (Met Office News Blog)

Date Created
November 2010

Early taste of winter for parts of UK

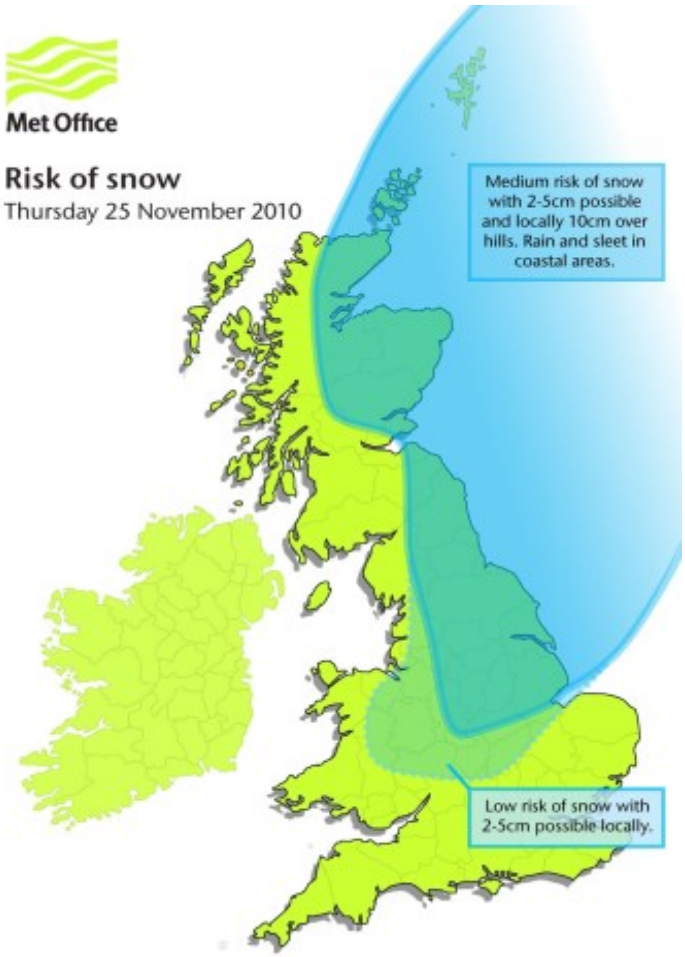
Description

Colder weather will take hold across the UK as we head through this week with snow showers becoming increasingly likely across eastern Scotland and north east England through the second half of the week.

Met Office forecasters have issued an Advisory for parts of eastern England and Scotland, where snow showers to become frequent in places giving localised accumulations of 2-5 cm of snow inland with 10 cm or more on high ground. There is a lower risk of snow extending further west into the Midlands and east Wales.

The change will also see the return of overnight frosts as temperatures fall well below freezing in the north by night and struggle to reach much above 3 or 4 degrees Celsius by day.

Met Office Chief Forecaster, Eddie Carroll said: “The cold weather is clearly on its way this week and the public are advised to stay up to date with the forecast to make sure they have the latest information regarding the coming weather.”


Met Office
Risk of snow
Thursday 25 November 2010
Medium risk of snow with 2-5cm possible and locally 10cm over hills. Rain and sleet in coastal areas.
Low risk of snow with 2-5cm possible locally.

Risk of snow on Thursday 25th November 2010

Throughout the winter months, Met Office Forecasters will be based at the Highways Agency's National Traffic Control Centre, providing information on weather conditions across the motorway and trunk road network.

Drivers are reminded that they should carry out simple vehicle checks before they set out; carry a severe weather emergency kit in their vehicles; monitor the traffic and weather conditions and plan their journeys.

You can stay up to date with the latest weather forecast from the Met Office by looking on our website, downloading our app for iPhone and Windows 7 phones, following us on Facebook and Twitter or using our weather widget on your website.

Date Created
November 2010

Met Office in the media: 23 November 2010

Description

Over the weekend a feature ran in the Western Morning News, exploring the work of the Met Office from the perspective of the Met Office Cheif Meteorologist. This story was reported in the Daily Telegraph and the Daily Mail, which was followed by some very positive comments by readers about the role of the Met Office.

Yesterday and today there has been widespread media coverage of the potential for increasing cold across the UK bringing outbreaks of snow. Contrary to the rather alarmist headline on the Daily Express on Monday, snow will be mostly confined to northern and eastern parts of the UK during the week, before other parts see an increasing risk of snow over the weekend. Overall it is still to early to give detail of who will see snow and who won't at the moment and the public are advised to stay up to date with the latest weather forecasts from the Met Office online, on tv and on the radio.

Related Articles

- Met Office on Cornwall floods: 'not every forecast will be absolutely correct' (telegraph.co.uk)
- Wrap Up! Early Winter Snowfalls Forecast (news.sky.com)
- UK snow fall Met Office warning: Temperatures to plummet below zero (dailymail.co.uk)

Date Created
November 2010

Further heavy rain in south west England

Description

The Environment Agency, Devon and Cornwall police, Devon County Council, Cornwall Council and the Met Office are warning householders in Cornwall, South Devon and Dorset to be aware of possible further flooding overnight and are urging people to take precautions to reduce the effects of flooding on their properties.

More than 250 properties were damaged after intense rain sent flood water pouring into homes in nine towns and villages including St Austell, Lostwithiel, Pentewan, St Blazey, Portloe, Luxulyan, Mevagissey, Par and Launceston.

The Met Office have issued a severe weather warning, predicting further rainfall over Friday night and Saturday morning, with the potential for heavy rain giving 15 to 20mm fairly widely, and the risk of 40mm locally across Cornwall and South Devon. This may lead to localised flooding, particularly where the ground is already saturated.

Environment Agency staff are on 24 hour alert receiving updates from the Met Office, continuously monitoring river levels and officers are already on the ground checking flood defences, and clearing river blockages and this will continue throughout the night.

‘These bands of rain could cause problems and we would urge people who live in homes that are vulnerable to flooding to start thinking about taking precautions to protect their properties. People should remain vigilant of the increased risk tonight and take action if they receive a flood warning,’ said Ben Johnstone for the Environment Agency.

‘The Environment Agency service will provide a warning of flooding from larger river systems but will not be able to provide advance warning from surface water or flooding from small watercourses.’

The Environment Agency and Met Office are reminding people to listen to local weather reports and updates in the media. They should also find out if they are at risk from river flooding by going to the Agency’s website or calling Floodline on 0845 9 88 11 88.

If they would like more information on the situation in their area, and to register for Flood Warnings Direct, they should also call the Floodline number.

People can take precautions, and these include:

- Listening to local radio for local weather reports and updates on http://www.metoffice.gov.uk, calling Floodline 0845 988 1188 for the current flood situation or checking the Environment Agency’s website http://www.environment-agency.gov.uk
- Think about what you could move to safety
- Prepare a flood kit of essential items
- Know how to turn off your gas, electricity and water mains supplies
- Making sure nearby drains are clear of leaves and other debris

- Avoid walking or driving through flood water
- Staying calm and reassuring people around them

Date Created
November 2010

Met Office in the Media: Friday 19 November

Description

The Western Morning News ran an article in the paper today explaining how ‘We issued rain warnings in good time‘ ahead of the heavy rain and subsequent flooding in Cornwall on Wednesday.

Today was also the one year anniversary of the Cumbria floods and The Times WeatherEye feature explored the weather that lead to that flooding. We have also put together a case study on the Cumbria Floods.

Many papers have reported on Met Office forecasts of a switch to colder conditions through the weekend and into next week. This was followed by an article on WebNewsWire demonstrating the relationship between the Met Office and the Highways Agency, helping to make sure that road users are prepared for winter. We have issued more information on the switch to colder conditions on our website, where you can keep right up to date with the UK forecast.

Date Created
November 2010

Met Office in the Media: Thursday 18 November

Description

The flooding across Cornwall has dominated the media today. Paul Harris wrote a feature in the ?Daily Mail, 'Swamped under 6ft of filthy water' reporting on the heavy rain and flooding devastation across parts of Cornwall. Within the article he wrote "So what brought these floods to Cornwall? Well, anyone who watched a weather forecast on Tuesday night would have seen the ominous herald of a thick, grey vertical band of storm cloud moving eastwards from Land's End.". The Daily Express, Guardian and Times all reported on the flooding with significant features.

A full summary of the heavy rain that affected Cornwall is now available on our website.

The severe weather was not only confined to Cornwall, with Northern Ireland taking a battering from heavy rain and gale force winds yesterday as storms caused flooding and misery for commuters across the province, reported in the News Letter.

The BBC Radio 4 Today programme ran an update on it's project to look at the accuracy of weather forecasters in the UK. More information on the accuracy of the Met Office can be found on our 'How are we doing?' webpages, including the facts that our next day temperature forecasts are correct 86% of the time and that the Met Office is consistently amongst the top two operational weather forecasters in the world.

The Guardian reported on a new project to ask the public to get involved in looking at how climate change will affect severe weather. The Weatherathome project, launched by colleagues at Oxford University, uses world leading climate modelling capability from the Met Office.

Related Articles

- You: Cornwall mops up after flash floods (guardian.co.uk)
- Clean-up under way in flood-hit Cornwall (independent.co.uk)
- Clean-up after floods in Cornwall (bbc.co.uk)
- Severe weather disrupts Cornwall (bbc.co.uk)
- Clean-up after floods in Cornwall? (bbc.co.uk)

Date Created
November 2010

Colder weather on the way

Description

Following recent spells of wet and windy weather, forecasters at the Met Office are predicting a change to colder conditions as we head through the weekend and into next week.

The change will see the return of overnight frosts and showery rain in many eastern regions of the UK, with a wintry mix over the hills.

Met Office Chief Forecaster, Richard Young said: “Temperatures are expected fall during next week, with eastern parts of the country the most likely to see any wintry weather.”

You can check out the latest weather forecast on our website.

Date Created
November 2010

Flooding in Cornwall

Description

A band of heavy rain, accompanied by strong and gusty winds pushed across Cornwall overnight last night, resulting in a number of towns and villages experiencing flooding this morning. There was some intense, but short-lived downpours as the rain pushed east, with Cardinham recording 18.8mm between 5 and 6 am this morning with total rainfall of 50.2mm between 10pm last night at 8am this morning. The heavy rain was accompanied by some strong winds with gusts to 55mph.

The joint Environment Agency/Met Office Flood Forecasting Centre issued an extreme rainfall alert yesterday afternoon to give emergency responders and local authorities advance warning of the heavy rain overnight and severe weather warnings were issued yesterday evening. National and local weather forecasts on TV and radio highlighted “torrential rain and gales force winds” in southwest England and south Wales throughout the day yesterday.

??Peter Tatlow, from Cornwall Highway Services, said to the BBC that although a severe weather warning was issued by the Met Office on Tuesday, it was “almost impossible” to keep gullies clear of leaves and debris at this time of year.

The weather has improved quickly this morning with cloud clearing to give some sunshine but with the odd shower later. More showers are expected to push across the southwest tonight and the Met Office and Environment Agency are monitoring this situation.

Further severe weather is expected to affect other parts of the UK in the next 24-36 hours with further heavy rain possible in western and north-western areas. We have issued a Weather Advisory for Northern Ireland for heavy rain with the potential of 50 to 80mm falling onto already saturated ground.

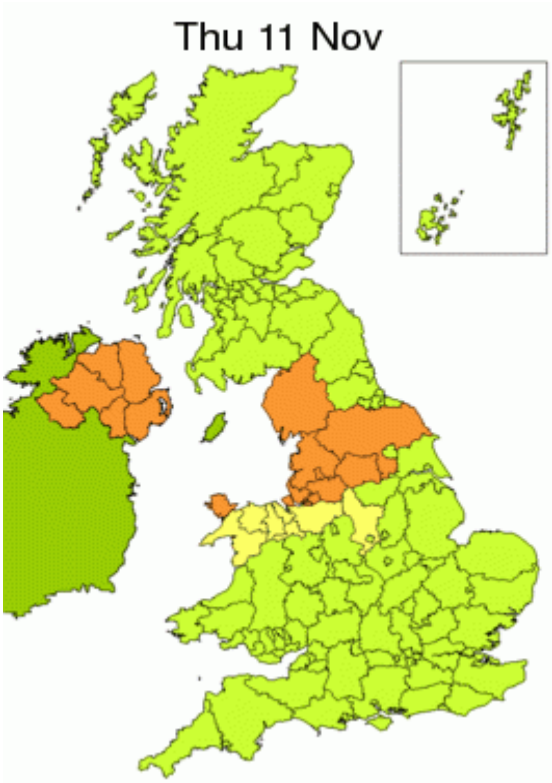
Related Articles

- Storms cause flooding chaos in Cornwall (independent.co.uk)
- Severe weather disrupts Cornwall (bbc.co.uk)
- Landslide cuts off Cornwall as storms hit south west (telegraph.co.uk)
- People ‘trapped’ in Cornish floods (thesun.co.uk)
- People Rescued From Cars In Cornwall Floods (news.sky.com)

Date Created
November 2010

Severe weather warnings in place as winds sweep Britain

Description



Weather warnings in force as of 8pm on Thursday 11 November

We have issued severe weather warnings for many parts of northwest England, the Derbyshire Dales, Yorkshire, North Wales and Northern Ireland as stormy weather pushes across the UK. Winds of 40 to 50 mph are likely quite widely across the UK, but gusts up to 70 to 80 mph are possible across northern parts of Britain through this evening and tonight, before gradually easing through the early hours of Friday morning.

Eddy Carroll, Chief Forecaster at the Met Office said: “It will be very stormy across the UK , with gales or severe gales. With winds from the southwest the major routes that run north–south through northern England are most at risk of seeing potentially disruptive cross-winds.”

The unsettled and often windy theme to the weather is forecast to continue through the rest of the week and into the weekend.

Related Articles

- Severe gales warning put in place (bbc.co.uk)

- Severe gales and wet weather to hit UK (guardian.co.uk)
- Met Office weather warning for NI (bbc.co.uk)
- Stormy weather set to get worse (guardian.co.uk)

Date Created
November 2010

Diary: 18-20 Nov – First Anniversary of Cumbria Floods

Description

Heavy and persistent rain caused widespread flooding in Cumbria, an in particular in the town of Cockermouth where during the night of 19–20 November 2009 over 200 people in Cockermouth were rescued from their homes by the emergency services.

One year on, we take a look at how the extensive flooding in Cumbria (case study) was made easier to deal with because of the warnings from the joint Met Office and Environment Agency Flood Forecasting Centre (FFC), and how developments in weather forecasting technology are helping us provide earlier warning of such extreme weather.

Date Created
November 2010

Met Office in the Media: Thursday 11th November

Description

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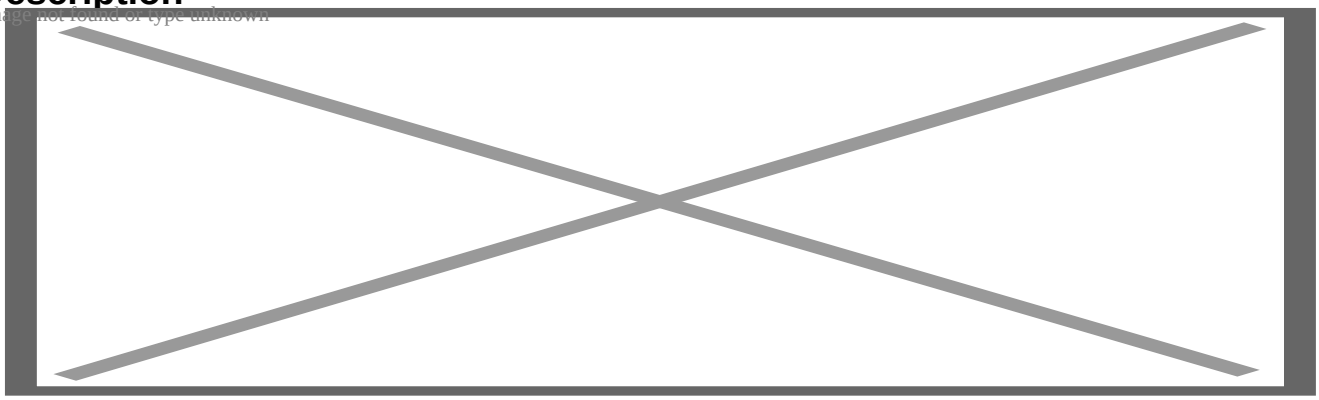


The VentnorBlog (www.ventnorblog.com) reported on the heavy and prolonged rain 'that was predicted by the Met Office' earlier in the week, providing photos of the flooding that was seen in parts of the Isle of Wight.

Nathan Rao at the Daily Express has reported on Met Office forecasts of severe gales or even storm force winds across parts of the UK today (*Warning as 80mph storm roars in with lashing rain*). Met Office forecaster Helen Chivers said in the article: "We are looking at much stronger winds than we saw on Sunday, gale-force moving into storm-force in parts which are going to last for most of the day." You can stay right up to date with the latest weather forecast and warnings on the Met Office website. Many other regional papers have also reported on our forecasts of severe weather.

Following the publication of the Climate Change Strategy for Wales, which has been informed by climate science experts from the Met Office. Speaking about the strategy, the First Minister for Wales was reported by WalesOnline as saying: "There is no doubt that our climate is changing, and that science states the case that human behaviour is to blame for this change. Met Office Chief Scientist followed this sentiment saying to WalesOnline in an article on what experts say about the strategy: "Our climate is changing and we know that some level of change in the future is unavoidable. Only through adaptation policies, firmly grounded in scientific advice, can we ensure that we are best placed to meet the challenges of climate change head-on."

Finally SouthWestBusiness.co.uk has reported on the latest Met Office forecaster recruitment campaign, in which we are looking for candidates who are "passionate about meteorology" and not only have the scientific skills to predict the weather accurately but also have the customer service skills to deal with our civilian and military customers.

Date Created

November 2010

Met Office in the Media: 08 November 2010

Description

The Times reports on a new piece of research published in Nature Geoscience which shows skill in being able to predict the frequency of tropical storms in the North Atlantic more than one season ahead. This has significant benefit for the insurance and re-insurance industry who rely on this kind of information to support their business decisions. This research builds on another successful forecast of the number of North Atlantic tropical storms forecast for the 2010 season between July and November. We predicted the most likely number to be 20. Hurricane Tomas, which affected Cuba and Haiti over the weekend was the 19th storm of the season.

The wet and windy weather, forecast by us last week, has also generated a lot of coverage. The Sun and Daily Mail both reported on the heavy rain and strong winds that affected the country overnight last night and through today. They reported on the risk of snow, although the risk was confined to the higher parts of northern England and Scotland.

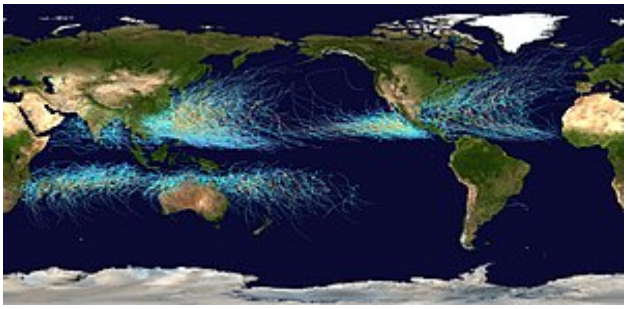
Related Articles

- Hurricane forecasts can be made years in advance (sciencenews.org)

Date Created
November 2010

Predicting hurricanes years ahead

Description



This map shows the tracks of all Tropical cyclones that formed between 1985 and 2005

A major breakthrough in forecasting the number of Atlantic tropical storms has been achieved, say Met Office scientists.

New research, published on Nature Geoscience web site today, reveals that the Decadal Climate Prediction System (DePreSys), developed at the Met Office, extends successful storm activity forecasts beyond the current season, providing predictions years ahead.

“Being able to predict hurricane frequency well beyond the seasonal timescale represents a real step-change in capability”, said Matt Huddleston, Principle Climate Consultant at the Met Office. “Tropical storms present arguably the most destructive weather on the planet. Being able to reliably predict how many storms may occur over a number of years means increased confidence in making strategic plans. Armed with such information, financial and energy sectors will have a genuine advantage.”

Willis Research Network says the research has serious implications for the way insurers asses risk, allocate capital and strategically manage their portfolios going forward.

There is a strong link between the environmental factors in the tropical Atlantic that affect hurricane formation and remote ocean conditions in the north

Atlantic and the tropical Pacific. Doug Smith, the paper’s lead author and Met Office specialist in decadal forecasting, said: “Our study is important for understanding the mechanisms of multi-year hurricane variability, and shows that forecasting hurricane activity beyond a single year is viable using dynamical computer models.”

The study has also examined the recent increase in Atlantic hurricane activity and concluded this was not exclusively linked to natural fluctuations of ocean temperature. Looking forward Dr Smith said: “This opens the door for further research to determine the relative importance of the different factors, be these greenhouse gases, aerosols, volcanic eruptions or solar activity.”

Date Created

November 2010

Met Office in the Media: 06 November 2010

Description

Reuters has reported that the Met Office Chief Scientist, Professor Julia Slingo OBE has suggested that the 2 degree Celsius climate target may need to change. Professor Slingo clearly stated that the the world should keep the 2C target to aid negotiations, but with advances in climate science these targets should always be kept under review, and if necessary adjusted to take into account research into local and regional effects, particularly on rainfall patterns. This follows publication of the Met Office Science Strategy, that has as one of its aims the desire to provide better local and regional data, especially on rainfall patterns that would enable individual countries to enter negotiations in a more informed, engaged way.

Several papers have reported on our forecasts of the potential for severe weather affecting the UK on Monday, following a settled, but cooler weekend. The Met Office warning says: “An unusually deep area of low pressure will bring a period of severe gales and heavy rain throughout Monday with inland gusts likely to reach 55 to 65mph in places, especially in areas exposed to the south to southeasterly winds. There is a risk of disruption due to falling trees, especially given that some trees are still in leaf.”. You can keep up to date with the latest weather forecast on our website.

The New York Times has reported (Historic Sea Voyages Buoy Climate Science) on a project by UK Scientists, including the Met Office Hadley Centre to use historical ship logs to gather past climate data . OldWeather.org forms a key part of the International ACRE Project, which is recovering past weather and climate data from around the world and bringing them into widespread use. Met Office Hadley Centre scientist Dr Rob Allan, the ACRE project leader said: “Reconstructing past weather from these historical documents will help further our knowledge of weather patterns and climatic changes.”

Nature has reported on how Brazil’s climate modellers are set to go global with the help of the Met Office Hadley Centre. A new supercomputer will drive model to analyse effects of wildfire on world climate and rather than starting from scratch, the Brazilian approach has been to piggyback on the Hadley Centre’s Global Environmental Model (HadGEM2_ES) while adding new features that reflect the complex interactions between the rainforest and the atmosphere above it. The resulting model could be the first to incorporate a detailed treatment of aerosol emissions from fire, enabling UK and Brazilian scientists to probe how the climate system responds to hot plumes carrying black carbon and other chemical compounds produced by fires in the Amazon and around the world.

“It is a tremendously exciting step forward,” says Richard Betts, who heads climate-impact modelling at the Hadley Centre. The IPCC’s fifth assessment includes a systematic analysis of various land-use scenarios that will allow scientists to explore the interactions between vegetation and climate, says Betts, and fire plays an important role.

Related Articles

- 2 degree Celsius climate target may need to change: UK scientist (reuters.com)
- Historic Sea Voyages Buoy Climate Science (nytimes.com)
- Brazil’s climate modellers are set to go global (nature.com)

Date Created
November 2010

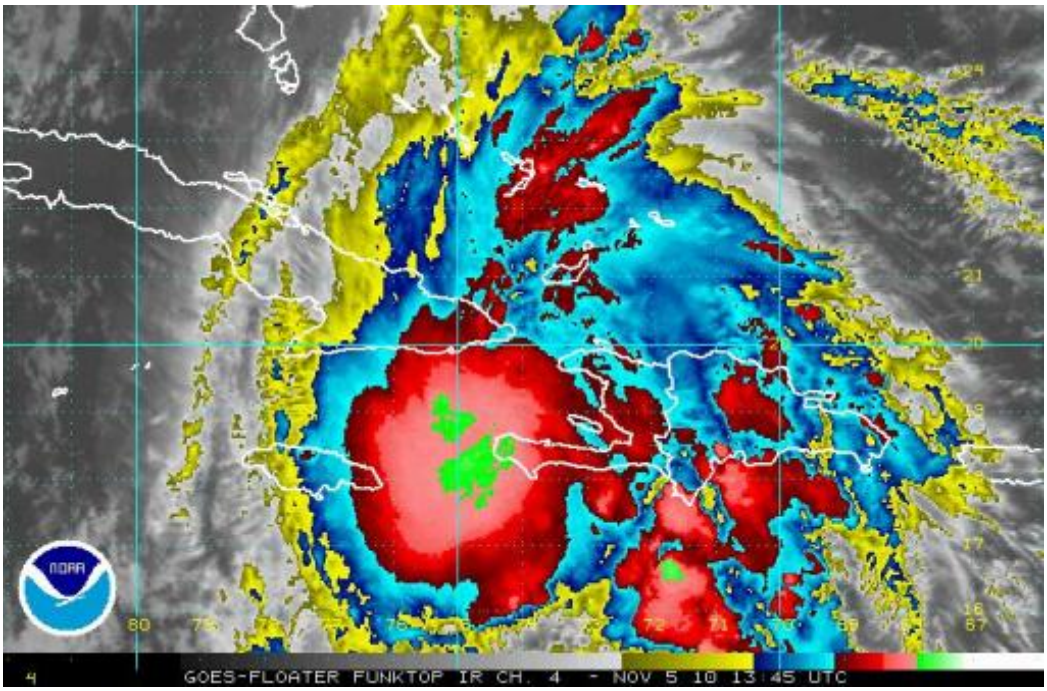
Hurricane Tomas hits Haiti

Description

?This year's Northern Hemisphere tropical cyclone season remains active with storms continuing to affect the Caribbean and the Bay of Bengal.

In the Caribbean Haiti, the Dominican Republic and Cuba are experiencing heavy rains and strong winds as Hurricane Tomas crosses the area, while Cyclone Jal has developed over the Bay of Bengal and is likely to hit India on Sunday.

Tomas strengthened as it moved north during the last 24 hours, bringing torrential rain and the risk of life threatening floods and mud slides to Haiti and the Dominican Republic.



Colour enhanced satellite image showing Hurricane Tomas as it heads across Haiti and Cuba taken at 1345 GMT on 5 Nov (Source: NOAA)

The Met Office has been supporting Shelterbox in Haiti throughout this year, providing regularly updated forecasts to them, along with other charities working in the region following the devastating earthquake at the start of the year.

Alf Evans, Operations Manager at Shelterbox said: "The Met Office notified us of the possible risk to Haiti over a week ago, and we were able to start planning contingencies with our team in Haiti ahead of the game, so we are in the best position we can be."

The Met Office is providing forecasts to the Foreign and Commonwealth Office, charities and other National Meteorological Services around in the world, to provide the best advice on the expected

movement of both Hurricane Tomas and Cyclone Jal.

You can keep up to date with the latest tropical storm news on our dedicated twitter channel @metofficestorms.

Related Articles

- Tomas Strengthens Into Hurricane, Batters Haiti (businessweek.com)
- Hurricane Tomas begins lashing coast of Haiti (ctv.ca)

Date Created
November 2010

Grimsvötn

Description

The Iceland Met Office has informed the Met Office of a Glacial Outburst in or around the Grimsvötn volcano on Iceland.

It is important to note that a Glacial Outburst is NOT an eruption, but is only potentially a pre-cursor to any activity.

Latest information from the Iceland Met Office is that there are no detectable signs of the beginning of a volcanic eruption at Grimsvötn.

Date Created
November 2010

Haiti braces itself for Tropical Storm

Description

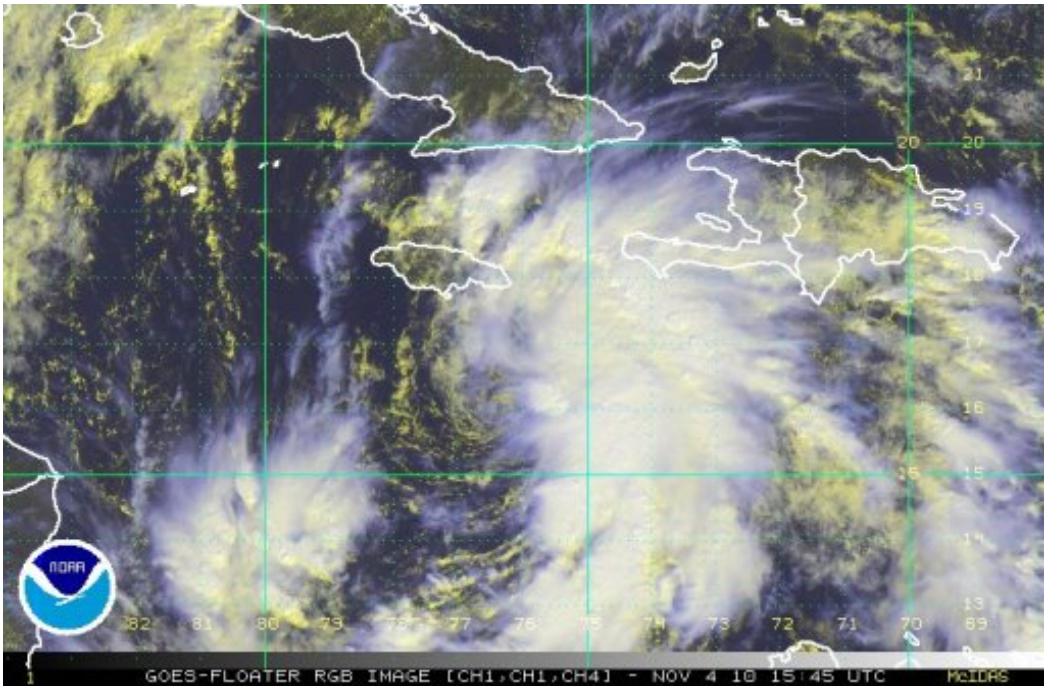
?The Met Office has been providing forecasts to the Foreign and Commonwealth Office, charities and other National Meteorological Services to provide advice on Tropical Depression Tomas which is expected to head towards Haiti.

As early as last Thursday, the Met Office has been providing advice that showed that the storm was likely to affect Haiti, bringing the potential of strong winds and prolonged rainfall.

Alf Evans, Operations Manager at ShelterBox said: “The Met Office notified us of the possible risk to Haiti early, and we were able to start planning contingencies with our team in Haiti ahead of the game, so we are in the best position we can be.”

Tropical Storm Tomas formed in the Caribbean Sea last Friday, to become the 19th storm of the Atlantic season. It is expected to re-strengthen over the next 48 hours to become a Hurricane before crossing Haiti at the end of this week. Even as a minimal tropical storm, Tomas could still cause life-threatening floods over Haiti.

Using the Met Office Global Ensemble Prediction System (MOGREPS), the Met Office provides 15-day tropical cyclone forecasts of the most likely track of the storm and an understanding of the range of possible storm tracks. The system can also identify areas where a new storm is most likely to develop and then monitor the likely track of such storms.



Satellite image of Tropical Storm Thomas to the southwest of Haiti at

15:45 GMT on 04 Nov 2010 (Source: NOAA)

The Met Office has been supporting ShelterBox in Haiti throughout this year, providing regularly updated forecasts to them, along with other charities working in the region following the devastating earthquake at the start of the year.

Date Created
November 2010